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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,220	06/16/2006	Atsushi Miyazaki	JFE-06-1129	7655
35811 7590 03/25/2010 IP GROUP OF DLA PIPER LLP (US) ONE LIBERTY PLACE 1650 MARKET ST, SUITE 4900 PHILADELPHIA, PA 19103				
			EXAMINER FOGARTY, CAITLIN ANNE	
			ART UNIT 1793	PAPER NUMBER
			NOTIFICATION DATE 03/25/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

### Office Action Summary

**Application No.**

10/583,220

**Applicant(s)**

MIYAZAKI ET AL.

**Examiner**

CAITLIN FOGARTY

**Art Unit**

1793

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-33 is/are pending in the application.
- 4a) Of the above claim(s) 18, 19 and 22-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-17, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Status of Claims***

1. Claims 13 – 33 are pending where claims 18, 19, and 22 – 33 have been withdrawn from consideration. No claims have been amended. Claims 1 – 12 have been cancelled.

***Status of Previous Rejections***

2. The 35 U.S.C. 103(a) rejection of claims 13 – 17, 20 and 21 as being unpatentable over Kawabata et al. (US 5,626,694) has been maintained.

The provisional nonstatutory obviousness-type double patenting rejection of claims 13 – 17, 20, and 21 as being unpatentable over claims 1 – 8, 10 – 14, and 16 of copending Application No. 10/512,782 has been maintained.

***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 13 – 17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabata et al. (US 5,626,694).

Kawabata is applied to claims 13 – 17, 20, and 21 as set forth in the July 22, 2009 Office action. No claims have been amended.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 13 – 17, 20, and 21 are provisionally rejected on the ground of

nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 8, 10 – 14, and 16 of copending Application No. 10/512,782 as set forth in the July 22, 2009 Office action.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

8. Applicant's arguments filed December 21, 2009 have been fully considered but they are not persuasive.

*Arguments are summarized as follows:*

- a. Applicants submit that the Examiner's position does not support an inherency rejection under MPEP 2112. The Examiner's reliance on "similar" methods does not establish that the properties "must necessarily" be present as required by the MPEP. Applicants have pointed to specific facts associated with specific embodiments disclosed and described in Kawabata that would lead one skilled in the art to have an expectation that the Applicants' steels could very well be different from those of Kawabata. The fact that the Applicants have pointed to specific facts in the Kawabata disclosure that at least in a limited way directed to those specific embodiments establishes that the properties are likely to be different inherently means that Kawabata cannot meet the "must" be "necessarily" present properties requirement of MPEP 2112.
- b. Steel Nos. 5 and C in Applicants' Table 1 have the exact same amount of W but, because there were differences in finishing annealing temperature (not to mention the fact that finishing annealing was performed in both cases which is different from Kawabata), the precipitated W amount was dramatically different. This can be seen in 0.095% in Steel 5 versus the Comparative steel which was annealed outside the finishing temperature and had a precipitated W amount of 0.580% which is well outside Applicants' claimed range. Table 1 provides examples of "similar" methods. However, they also factually demonstrate serious differences in the resulting steels and their physical and mechanical properties.
- c. In response to the Examiner's statement that Applicants have not submitted factual evidence to support the argument that an annealing time of

three minutes would produce a significantly different product than an annealing time of ten seconds, Applicants submit copies of two randomly selected publications that show that annealing times based in minutes and even seconds can have significant impact on physical and mechanical properties of various types of materials. Thus, the Applicants have still further provided additional factual evidence that annealing times measured in minutes versus seconds can have significant impact on the microstructure of steels and, as consequence, their mechanical and physical properties. Applicants have further demonstrated that the diffusion lengths of the instant claims are by far larger in annealing after the Applicants' cold rolling. In order to secure the claimed precipitated W of 0.1% or less, it is important to determine appropriately the hot-rolled sheet annealing temperature and the finish annealing temperature, particularly the finish annealing temperature.

d. Applicants' specification recites that the precipitated state of W is a precipitated state mainly in a form of the Laves phase and it occurs most rapidly at a precipitation temperature centering around 700°C. However, when annealing is performed at 850°C for 5 hours as taught in one of the inventive examples of Kawabata, Laves phase is conspicuously precipitated and as a result of this, re-melting is not achieved by subsequent cold rolled sheet annealing.

*Examiner's responses are as follows:*

- a. In the absence of factual evidence to the contrary, the Examiner maintains the position that since the composition of the ferritic-Cr-contained steel of Kawabata overlaps with the composition of the steel of the instant invention and since the steel of Kawabata is made using a method similar to the method of the instant invention, one of ordinary skill in the art would expect the steel of Kawabata to inherently have similar physical and mechanical properties. In the alternative, since independent claim 13 recites that precipitated W is about 0.1% or less in percent by mass, the claimed range of precipitated W includes 0%. Therefore, since Kawabata does not disclose an amount of precipitated W, it is assumed that the ferritic Cr-contained steel of Kawabata comprises 0% precipitated W which is within the instant claimed range. Applicant has not demonstrated that the prior art of Kawabata would have precipitated W in an amount outside of the instant claimed range.
- b. As set forth in previous Office actions, col. 6 line 63-col. 7 line 5 of Kawabata teaches that the final annealing temperature is 700-1300°C which overlaps with the temperature range recited in the instant claim. Applicants have cited comparative examples recited in the instant specification, but have not compared the instant application with the closest prior art of Kawabata as required by MPEP 716.02(e) in order to overcome the prima facie case of obviousness. Therefore, the Examiner maintains the rejections set forth in the previous Office actions.

- c. In regards to Applicants' submission of two randomly selected publications that show that annealing times based in minutes and even seconds can have significant impact on physical and mechanical properties of various types of materials, neither reference teaches a steel similar to the claimed steel that comprises W. Therefore, Applicant has not compared the instant application with the closest prior art of Kawabata as required by MPEP 716.02(e) in order to overcome the prima facie case of obviousness. Thus, the Examiner maintains the rejections set forth in the previous Office actions. Furthermore, Applicants calculation of diffusion length is only considered Applicants' argument and is not considered factual evidence because it was not submitted in declaration form. See MPEP 2145 I. In addition, the instant claims do not recite the annealing time and therefore Kawabata is not required to teach this limitation. Also, the instant claims are product by process claims and therefore once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, even though it may be produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. See MPEP2113.
- d. As discussed above, Applicant has not submitted factual evidence to demonstrate that the instant ferritic-Cr-contained steel would be materially different from the steel of Kawabata as a result of the annealing temperature. Since independent claim 13 is a product by process claim, once the examiner



provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, even though it may be produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. See MPEP2113. Applicant has not compared the instant invention to the closest prior art of Kawabata.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAITLIN FOGARTY whose telephone number is (571)270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

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